JULY 1952

FIREMEN

FIFTY-SEVENTH YEAR • NATIONAL FIRE PROTECTION ASSOCIATION

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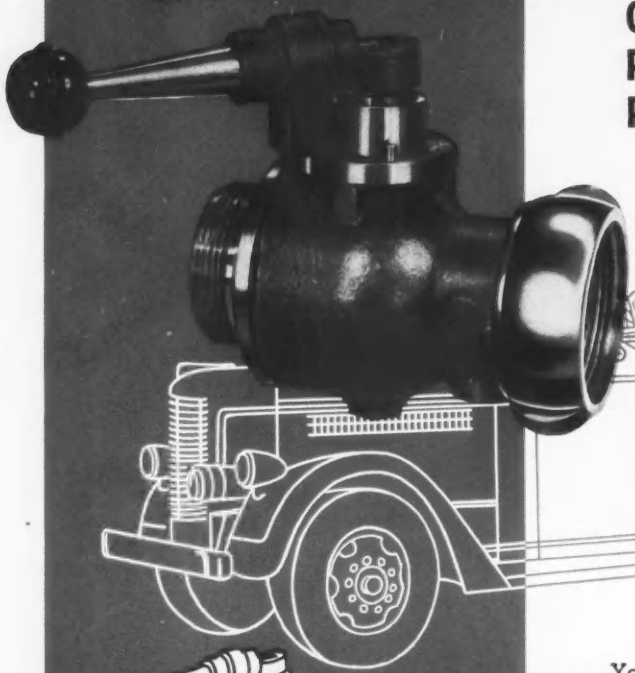
A Public Relation— The Fire Clown

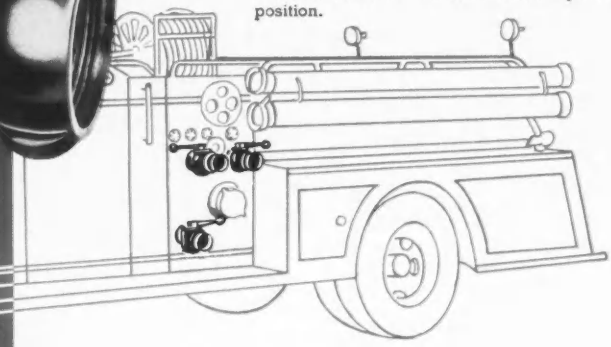
(See page 9)

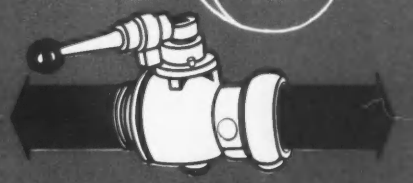
CONTROL-FLO *Apparatus Valve*

OPERATES EASILY FROM LOWEST PRESSURE TO THE BURSTING PRESSURE OF YOUR FIRE HOSE



The Control-Flo apparatus valve operates easily at any pressure assuring quick, trouble-free use. You can control various hose line pressures independently without changing pump speed. By simply turning the throttle handle a breaking mechanism locks the ball valve open in any position.





WILL TAKE PRESSURE OR VACUUM IN EITHER DIRECTION

You can be assured of long-lasting, leak-proof valve operation when you specify Control-Flo valves on your new pumper for either suction or discharge use. Several apparatus manufacturers are now using this Control-Flo valve as standard equipment on their pumpers, other manufacturers will install them to meet your requirements. These valves are available in all thread or flange combinations for replacement of obsolete or worn-out valves.

Control-Flo valves will take pressure in either direction, for either discharge or intake. Holds vacuum for priming. The exclusive seal ring principle makes this possible. The full, round construction of the waterway leaves no obstructions and assures against turbulance and pressure loss. Can be furnished with remote controls for across-pump operations.

REDUCING SIAMESE WITH CONTROL-FLO VALVES

Engineered for the modern, streamlined apparatus this practical piece of equipment measures just 9 inches from the face of the swivel to the farthest projecting point.

WOOSTER

WOOSTER BRASS

WOOSTER, OHIO

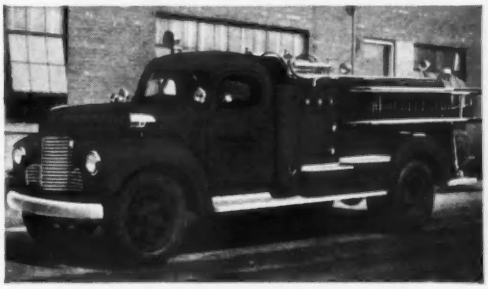
A DIVISION OF THE FYR-FYTER CO.

AN ACTION photo taken from the roof shows four lines of John Bean high-pressure fog working on the third and fourth floors of the elevator.

CONFIDENT of the fire-fighting and protection power of John Bean high-pressure fog, firemen were able to combat the blaze at close quarters inside the elevator.

JOHN BEAN HELPS MAKE ANOTHER REMARKABLE STOP

Roaring elevator fire whipped in four hours



ONE OF FOUR Bean high-pressure fog units called on to make the stop. The use of high-pressure fog helped conserve the water supply, an important factor since Springport does not have a municipal water supply.

ONE LOOK at the clouds of dense smoke billowing from the Day Elevator in Springport, Michigan, convinced Fire Chief Donald McCully he had a tough fire with the odds against him.

Springport's John Bean High-Pressure Fog Fire Fighter went into action immediately, and soon three additional John Bean fog units, from neighboring departments, were battling the stubborn blaze. In all, thirteen pieces of equipment responded to Chief McCully's call, under a mutual-aid agreement.

Making the most of every drop of the limited water available, eight lines of hard-hitting high-pressure fog were supplied by the four John Bean trucks. Protected by the fog, firemen were able to approach and smother the flames so effectively that within two hours the fire was under control. In four hours the fire was out.

Firemen who worked the lines praised both the fire-fighting efficiency and ease of handling of John Bean high-pressure fog. As with all elevator fires, the fire fighting was done under the most difficult conditions.

Find out how *your* community, too, can be protected with John Bean High-Pressure Fog Fire Fighters. Write today for information on the complete line of John Bean Fire Fighters.

John Bean Division
Dept. 127
Lansing 4, Michigan

JOHN fmc BEAN

FOOD MACHINERY AND CHEMICAL CORPORATION

John Bean Division
P. O. Box 145
San Jose, California

ORIGINAL HIGH-PRESSURE FOG FIRE FIGHTER

Can be mounted on most standard truck chassis

A PRODUCT OF FOOD MACHINERY AND CHEMICAL CORPORATION

AHRENS-FOX

...for those who insist on the finest

What's wrong with this picture?

Look carefully, now, because this is a
picture of the world's finest fire engine.

It was made by Ahrens-Fox, so it has received the benefit of experience that goes back to the first practical fire engine ever built.

And this experience has been teamed with the progressive mechanical thinking that *keeps* Ahrens-Fox far ahead of the others.

So what's wrong with this picture?

Take a look at the name. It says that Newport, Ky., is a community that has arrived...a community that has provided the best fire protection that money can buy . . . a community that insists on the finest.

Well—shouldn't *your* name be there?

For your sake—and your community's sake—choose Ahrens-Fox. Choose it with confidence—and run it with pride!

Here's just one of the features that helps make Ahrens-Fox the *finest!*

The "easy control" pump governor—exclusive by Ahrens-Fox—offers truly automatic control . . . the power output of the engine is automatically controlled to meet the pumps discharge requirements.

The governot control is readily adjusted by a hand wheel . . . and an accurate gauge assures the selected pressure.

AHRENS • FOX FIRE ENGINES

CINCINNATI 14, OHIO

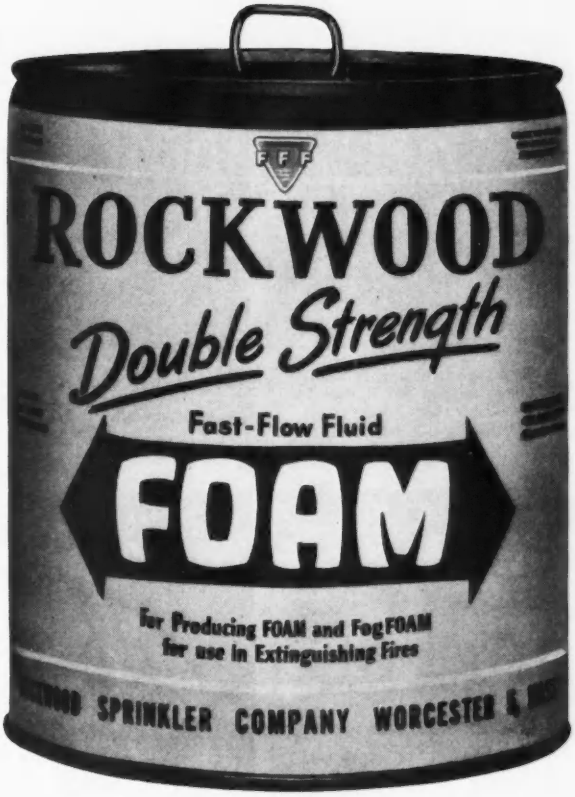
Quenches Quicker!

. . . with Less Water

that's the Short-Short Story of Rockwood Fire Fighting Aids

That's why fire-fighters like to work with Rockwood's equipment. Take for instance our new contribution to modern fire fighting, the Rockwood Double Strength FOAM Liquid which has many important advantages. Three of these are:

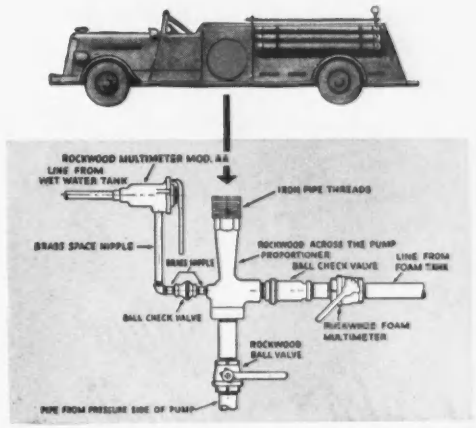
- 1. more fluid
- 2. faster spreading
- 3. flows freely at sub-zero temperatures



Rockwood's new Double Strength FOAM Liquid will put out fires in flammable liquids faster and at lower cost. Three parts of FOAM liquid mixed with 97 parts of water form an excellent foam blanket that will quickly re-seal if broken. Double Strength FOAM Liquid is more fluid, faster spreading and flows freely at sub-zero temperatures (−15° F.) It is quicker to put into action, covers burning surfaces faster, seals off combustible vapors completely and flows freely around obstructions. This foam blanket has proved its ability to extinguish large spill fires in gasoline with maximum speed and safety to firemen.

ROCKWOOD SPRINKLER COMPANY

Engineers Water . . . to Cut Fire Losses



Accurate Mixing Assured: Automatically feeding Double Strength Foam or Wet Liquid into hose lines, Rockwood's Model Dual "B" Around-the-Pump Proportioner is designed for use where pressure is maintained by a pump from either draft supply or booster tank. Multimeter settings admit proper amounts of wetting agent for varying nozzle discharges and solution strengths.

Special Fire Truck Proportioning Systems for FOAM Liquid and Wetting Agents

Trucks for crash-rescue fire fighting, at airports or for handling spill fires in an oil refinery require special proportioning systems for large volume FOAM discharge through several FOAM turret and hand line nozzles.

Custom engineered proportioning systems to meet these and other unusual requirements are a Rockwood specialty. If you have such hazards let us engineer a proportioning system to fill your needs.

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ROCKWOOD SPRINKLER COMPANY
88 HARLOW STREET, WORCESTER 5, MASS.

Please send me Rockwood's illustrated catalog on the complete line of cost cutting, efficiency-boosting products for modern fire fighting.

Name_____

Title_____

Company_____

Street_____

City_____

Zone_____ State_____

CAPTAIN JAMES FLOWERS
Laurel Fire Department
Laurel, Mississippi

"Here's why I say... thanks a million for a Fireman's Helmet that CAN TAKE IT!"

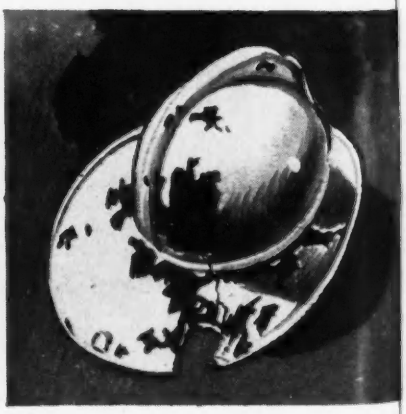
1. "Seconds after the alarm came in, we were on the truck and roaring out of the station.

2. "It was a concrete block theater building. All we could see were flames and smoke, and the heat was terrific. We rolled into action.

3. "I'd been manning a hose from a ladder position for about 5 minutes when the Chief yelled to come down, on the double.

4. "I just made the ground when the wall gave way. The air was filled with concrete—all of it headin' my way.

5. "I made a run for it, but a falling block crashed into my helmet, sent me sprawling. More followed, hitting my legs, back, feet.



6. "When it was over, my nose was broken, and I was plenty bruised. But thanks to your helmet, I was saved from serious injury, or death."

M.S.A.
STREAMLINED
FIREMAN'S HELMET

You're doubly protected when you wear this proved helmet. The one-piece, high pressure molded construction takes bumps and blows without passing them on. Its high dielectric strength safeguards against electrical hazards—and because the laminated bakelite is non-absorbent, this protection isn't affected by moisture conditions. Ask for Bulletin No. DX-8, for complete details.

MSA
SAFETY EQUIPMENT HEADQUARTERS

Call the M.S.A. Man on your every safety problem . . . his job is to help you.

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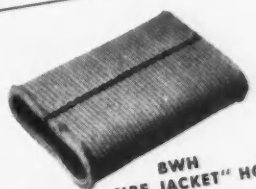
Your Enemy is No Gentleman

Never go to face your deadly enemy with "tired", vulnerable weapons. For this foe of all of us . . . fire . . . is a shifty, sneaky adversary . . . ever-alert, always the opportunist, never a sportsman.

Your best bet to meet him on his own terms is with weapons he can't deny: preparation, training, ample and well-maintained equipment.

And the equipment is where we can help you.

In the matter of fire hose, for instance, BWH Fire Hose is always ready to answer the bell. Light in weight, easy to handle on ground or ladder, flat-cured to ride snug in truck bed.



BWH
"BOSTON FIRE JACKET" HOSE
Double Jacket

Heavier, stronger fibers, perfect adhesion, smooth, friction-resistant water-way. Rates tops in every test!

BWH
"PARAMOUNT" HOSE
Double Jacket

Designed for easy handling and long service on tough jobs. Ages well, withstands high pressures.

BWH
"MILO" HOSE
Single Jacket

For long, trouble-free performance in communities where a light service hose is adequate.

BWH
"UNDERWRITERS" HOSE
Single or Double Jacket

Made in strict accordance with the National Board of Fire Underwriters' specifications. Labeled or unlabeled.

BWH
DEPENDABLE RUGGEDNESS

Another Quality Product of

BOSTON WOVEN HOSE & RUBBER COMPANY

Warehouse Stock: 111 N. Canal St., Chicago, Illinois **Distributors in all Principal Cities**

PLANT: CAMBRIDGE, MASS. • P. O. BOX 1071, BOSTON 3, MASS., U. S. A.

CHAMPION Portable Fire Pumpers

Unexcelled for Performance and Stamina

$290

Suction and discharge connections, straight iron pipe thread standard; special threads at extra charge.

Engineered for Fire Fighting

Model No. 8AE — Weight 171 lbs. Dimensions: Width 19 inches, length 21 inches, height 22 inches.

Pump — Champion Centrifugal. Discharge outlet 2½-inch iron pipe thread. Suction inlet 2½-inch iron pipe thread. Shutoff gate valve on the discharge outlet. Primes automatically.

Engine — 8 Horsepower Briggs and Stratton gasoline engine, 4 cycle, air cooled. Gas tank capacity 1½ gallons. Enough gas to operate the engine under full load for 1¾ to 2 hours.

Check CHAMPION *Performance Before You Buy*

ACTUAL TEST — MODEL NO. 8AE

GALLONS PER MINUTE	GALLONS PER HOUR	TOTAL PUMP PRESSURE, POUNDS
150	9000	58
175	10500	55
200	12000	50
250	15000	40

Trial Test A Champion for 30 Days Before You Buy Any Portable Pumper

If your Department is planning the purchase of a Portable Pumper, you will want to consider our offer to let you try before you buy. You can order a Portable Pumper from us with the understanding that you have the privilege for 30 days (without any expense or obligation to purchase) of making any tests to prove Champion superior performance to yourselves.

If the Champion Centrifugal does not come through every test with flying colors you can ship it back and we'll pay the freight both ways. We welcome competitive tests — test a Champion alongside any other pumper of same capacity. That is, if you can find another manufacturer willing to ship a Portable Pumper on trial.

DARLEY PORTABLES *Meet U.S. Gov. Civilian Defense Specifications*

CARRY A PORTABLE PUMPER ON YOUR RURAL FIRE TRUCK

Use the Portable Pumper at water sources inaccessible to your truck. With the Portable Pumper operating in tandem with the pump on your truck you can pump through thousands of feet of hose. The Portable Pumper supplies water to the truck pump which boosts the pressure and relays the water to the fire for effective streams.

Write for Fire Apparatus Booklet and Fire Equipment Catalog

W. S. DARLEY & CO., Chicago 12

Factories — Chicago and Chippewa Falls, Wis.

Firemen

Volume 19 — Number 7

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PAUL R. LYONS, ASSOCIATE EDITOR
HENRY S. GERE, ADVERTISING MANAGER

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NATIONAL FIRE PROTECTION ASSOCIATION

A VOLUNTARY NON-PROFIT ORGANIZATION
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Cover Picture

Few forms of entertainment can match the universal appeal of a clown. Whether he "pratfalls" before a packed house in Madison Square Garden or cavorts before the band of a volunteer fire department in a small community, he somehow carries the magic key that opens the hearts of his audience and wins for him the homage of attention.

Many fire departments make good use of a clown's entertainment ability to promote good public relations. During parades or similar public performances a clown can sometimes be the best means for promoting a fire prevention campaign or for focussing the attention of the community on some need of the fire department.

This month's cover shows "Toby Toff," clown of the Rice Lake Township Organized Fire Fighters in Minnesota. Without the makeup he is Jim Lobb, fire fighter and auditor of that organization. As "Toby" he has played an important role in the annual "Funfest" in Rice Lake. The fire fighters in that community launched a full-scale public relations program to get financial support for their rural fire department. For further details see pages 14 and 15 of this issue.

Reference List for Firemen's Training

The 1952 revised edition of "A Reference List for Firemen's Training" (NFPA No. 611-M) is now available. This popular publication is prepared by the NFPA Committee on Firemen's Training to provide a list of up-to-date technical material for use by instructors and members of firemen's training classes. It describes publications which have already proven useful for basic or elementary courses of training and includes additional information on the cost of such publications and where they may be obtained.

A new section of this publication lists some motion picture films that are suitable for use as firemen's training aids, as recommended by the NFPA Committee on Firemen's Training. (The National Fire Protection Association also issues a "Fire Control Film List" prepared by the NFPA Committee on Visual Education. This pamphlet lists interesting motion picture films on fire protection subjects.)

Copies of "A Reference List for Firemen's Training" may be obtained for thirty-five cents each by writing to the NFPA Executive Office, 60 Batterymarch Street, Boston 10, Massachusetts.

New Comic Book Available

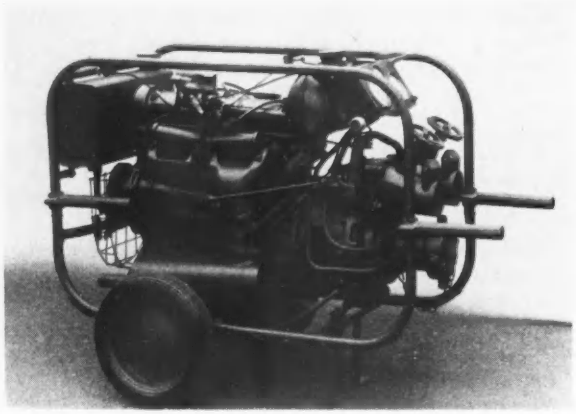
The third NFPA fire prevention comic book is now available for distribution. Named "Fire and Blast" it is a 16-page booklet in full color that describes the part that fire fighting might play during an actual invasion or some peacetime emergency.

"Fire and Blast" should prove to be even more popular than the two previous comic books "Fire" and "America in Flames," each of which had distribution of more than 600,000 copies. Many fire departments and industrial organizations took advantage of the discounts offered for quantity purchases and distributed the books to schools, homes, and business concerns. One leading manufacturer ordered 250,000 copies to give to employees and their families. Fire departments used the books extensively during Fire Prevention Week activities and to promote enthusiasm for fire prevention among members of Junior Fire Patrols, Boy Scouts, and similar organizations.

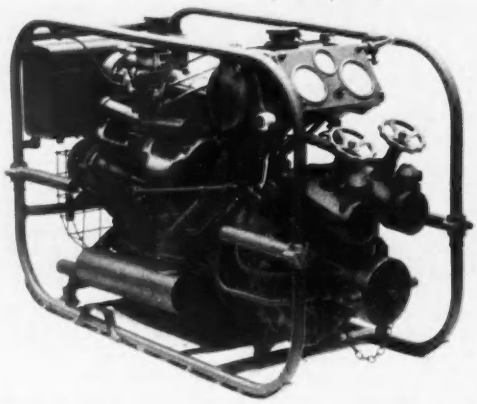
"Fire and Blast" may be obtained from the NFPA Executive Office, 60 Batterymarch Street, Boston 10, Massachusetts. Supplies are available at $5.00 per hundred; $45.00 per thousand. Attractive discounts may be obtained for quantity purchases.

I A F C Conference

The 79th Annual Conference of the International Association of Fire Chiefs will be held in Boston, Massachusetts, August 25–28. Headquarters will be at the Hotel Statler. Advance registration forms were distributed with the May-June issue of "The Fire Chiefs' News Letter" together with information on exhibits and other programs scheduled for the conference. Further information will appear in the August issue of FIREMEN.



New British civil fire defense portable pump showing 15-in. wheels attached. This pump delivers from 260 Imperial gpm (325 U.S.) at 120 lbs. to 350 Imperial gpm (437.5 U. S.) at 80 lbs.



View of British portable pump showing suction and discharge connections. The pump is driven by a direct-connected 4-cylinder gasoline engine. It is interesting that the pump delivers approximately one gallon for each lb. of weight of the complete assembly.

New British Portable Pump

CHIEF INSPECTOR H. M. SMITH, of the Fire Service Department, British Home Office (member NFPA), reports that tests have been completed on a new portable pump shown on this page. The tests were "quite satisfactory" and this light portable pump will become a part of the equipment of thousands of new emergency appliances (fire apparatus) now being delivered through the British civil fire defense program.

This pump is a single-stage centrifugal pump designed for an output of 300 gpm (375 gpm U.S.) at 100 lbs. pressure when running at 3,500 rpm. There is a 4-in. suction and two 2½-in. delivery connections. Priming is by exhaust gas. Engine and pump are direct connected.

The engine, specially designed for this pump, is a 4-cylinder, short-stroke, water-cooled gasoline engine with overhead valves and camshaft. It is rated for continuous duty of 35 bhp at 3,500 rpm. Bare engine weight is 180 lbs. Cooling is by indirect, closed circuit system, coupled to the suction and delivery sides of the pump.

The complete unit is mounted in a light tubular steel frame with folding handles adjustable for use by two or four men. A detachable axle with 15-inch wheels is provided and locks automatically in position. With carrying handles, dimensions are: length 3 ft. 7 in.; width 1 ft. 7¾ in.; weight 2 ft. 3 in.

Aluminum alloys have been used extensively to keep the weight down. The complete unit with lubricating oil, cooling water, and full 2-gallon fuel tank weighs 346 lbs.

In commenting on the new pump Chief Inspector Smith writes:

"I personally think it goes a long way to finding the answer to the debris problem as it is an appliance which can be carried fairly easily and also has a good output, *i.e.*, it does give four really good ¾-in. fire-fighting streams. One of the snags with the standard portable pump is that usually they are of very small capacity and, quite frankly, the experience I had with them in the last war during air raids was that they were not a fire-fighting weapon.

"I forgot to mention that we found that trailer pumps possessed many disadvantages in the last war and this light portable pump is intended to supersede them.

"With regard to manual pumps, in the last war we developed a two-man manual pump. . . . I think, however, it is only fair for me to add that whilst many thousands of them were made and supplied to air raid wardens in addition to the fire service, the ordinary stirrup hand pump was such a useful appliance and could do such an extraordinary amount of good work when handled by determined people, that when fires got beyond the control of stirrup pumps then normally it was a case for a motor-driven pump."

(*For a review of some portable pumps used in the United States, see* FIREMEN *for May, 1952.* — Ed.)

British Fire Defense Exercises

ACCORDING to the June, 1952, issue of *Fire Protection Review* published in London, Britain's wartime problems are currently being discussed by senior fire officers, scientists, civil defense experts and leaders of private and public industries at the Fire Service College near Dorking, England. By the end of July, 600 officers, including several from Canada, France and Western Union countries, will have completed a series of conferences and tactical studies. It is anticipated that the strategy of fire defense against atom, high-explosive and incendiary bombing and the composition and equipping of fire-fighting forces of the Western Powers will be completed following the Dorking discussions.

At the conference a tactical exercise termed "The Hockley Incident" is carried out to illustrate Britain's plan for fire defense. By means of large scale maps, diagrams and models, Birmingham is shown under atom bomb attack. Home Office experts have been able to forecast what would happen were a bomb dropped on a built-up industrial area and what problems would face the fire-fighting forces in a four-hour struggle to confine the fires started by the bomb.

Used in the exercises are scale models of industrial areas of Birmingham made by 12 members of the Birmingham Fire Brigade. These show every building in the area at

a 12-ft. to 1-in. scale and are valued at £8000 (about $23,000). By means of lighting and luminous paint a realistic impression is given of fires that would be started by atomic flash and radiation.

To deal with incidents of this nature Britain's fire-fighting forces will again be reorganized on a national basis should war threaten. The Fire Service Department of the British Home Office, headed by Chief Inspector H. M. Smith, now serves as an inspectorate and staff organization. Under war conditions "the existing fire station grouping will be largely maintained but will be augmented by self-contained mobile columns located at strategic points and available for duty anywhere." The operation of these mobile columns was demonstrated with scale models at the Fire College. The Fire College exercises contemplated use of 1090 pumpers to fight 1000 fires in an area 1¼ miles long.

Britain is already receiving delivery of a large number of civil defense fire pumpers. As pointed out previously in NFPA FIREMEN these are rated at 900 Imperial gpm at 100 lbs. This is substantially identical with U. S. civil defense fire pumpers rated to deliver 750 U. S. gpm at 150 lbs.

However, according to information published in *Fire Protection Review* the British pumpers will have the main pump mounted in the rear and driven by power take-off. The main pump is equipped for in-line foam production. There is a compartment for the portable pump previously described. There is a positive priming pump and twin hose reels are supplied by the main pump from a 400 Imperial gallon (480 U.S.) water tank. The truck has an enclosed cab and crew compartments and carries a 35-ft. aluminum ladder.

Each of the mobile columns will be self-contained and will comprise 50 pumpers, 6 hose laying lorries, 8 pipe line vehicles, 7 mobile control units, two foam tenders, repair and canteen vans, staff cars, dispatch riders motorcycles, and ancillary vehicles. These will be manned by 460 men and 40 women. There will be more than 100 such columns. All wheel drive pump and water tenders are also being built.

(*Please turn to page 21*)

New York State Fire Instructors' Conference

SIXTY fire instructors representing the various counties of New York State held their 4th Annual Conference at the Mark Twain Hotel, Elmira, beginning Sunday evening, May 4th, and continuing through Friday evening, May 9th. The official program conducted by the staff of the State Bureau of Fire, headed by Chief B. Richter Townsend, included a daily 8:30 A.M. to 10:30 P.M. schedule of study and actual fire-fighting evolutions, plus many hours of overtime.

The purpose of the 1952 conference was to test out the "Workbooks" to be issued to thousands of New York State firemen participating in the training course and also check the lesson plans issued to instructors. In this conference the county fire instructors enacted the roll of training course students.

Active in the conference were Director Thomas W. Ryan, New York Division of Safety; Deputy Director J. Palmer Harcourt; Dr. Leonard C. Silvern, Training Coordinator; President Irving Merrick, New York State Association of Fire Chiefs; President Irving Wallach, New York State Volunteer Firemen's Association; Roi B. Woolley of Fire Engineering magazine who presided at a meeting of the State Fire Advisory Board held May 5th; and Warren Y. Kimball, Manager, NFPA Fire Services Department.

In addition to the intensive training program the instructors had opportunity to visit the factories of American-LaFrance-Foamite Corp. and the Ward-LaFrance Truck Corp. both located at Elmira.

Deputy Chief Ambrose Foos of Rochester was elected president of the group succeeding L. A. Terryberry of Montour Falls.

The driveway around the lake at Eldridge Park proved an excellent place for pumper suction and relay practices.

Making of various donut rolls was practiced includin the "double" donut for 1½-in. hose as shown here.

Instructors carried out all assignments in the "Workbook" including rolling hose and using burst hose jackets.

Instructors observe the operation of a late type airplane crash truck built by American-LaFrance-Foamite Corp.

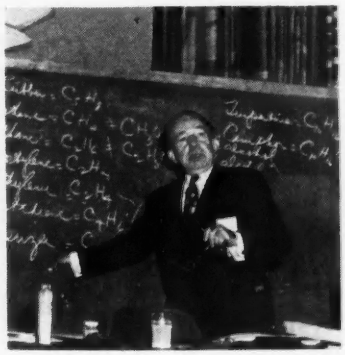
Highlights of the 56th NFPA An

During the week of June 9-13 a total of 1245 NF members and other persons interested in fire safety gathered at the Hotel Statler in New York City to participate in a variety of sessions covering many problems of concern to the fire service. Some of the featured speakers of

Scene at the registration desk of the Hotel Statler, New York City, just before the opening of the General Session on June 9. A total of 1245 NFPA members and guests attended the 5-day meeting.

Richard E. Vernor, Chairman, NFPA Board of Directors, and Manager, Fire Prevention Department, Western Actuarial Bureau, presents a certificate of appreciation to the National Commission on Safety Education, represented by Norman Key.

Retiring NFPA President A. H. S. Stead, of Montreal, presided at the opening General Session and the closing session on Friday morning.



A stimulating talk on the promises of the world of tomorrow was given by S. J. Rosch of the Anaconda Wire & Cable Company as the feature address during the opening session of the Annual Meeting.

Representing the International Association of Fire Chiefs, Vice President Henry G. Thomas, Chief of the Hartford, Connecticut, Fire Department spoke on current problems of the fire service.

The welcome of the Fire Department, City of New York, was extended to NFPA members and guests of the annual meeting by Hon. Jacob Grumet, New York City Fire Commissioner.

Deaths from oil stove fires in homes are usually caused by ignorance or carelessness, stated Chief John C. Klinck, of the Memphis, Tennessee, Fire Department during the session on home fire safety.

The Aviation Seminar on Tuesday attracted the largest and most enthusiastic audience of its history. Shown below is one of the featured speakers, Capt. Albert C. Peterson, Director, Lowry Air Force Base, who described the crash rescue training programs used by the United States Air Force.

(Below) Mrs. Susan B. Rutherford, Assistant Secretary of State, the Commonwealth of Kentucky, was the feature speaker during the session on home fire safety and began her address by awarding the titles of "Honorary Kentucky Colonels" to Dick Vernor *(left)* and NFPA General Manager Percy Bugbee.

Annual Meeting in New York

five-day program are shown on these pages. A local committee, under the direction of NFPA member Edward J. Kehoe, arranged a number of tours and other social events which helped to make this meeting one of the most active and well-rounded programs in many years.

An overflow crowd gathered in the Georgian Room to hear a dynamic talk on home fire safety by popular Mrs. Susan B. Rutherford, Assistant Secretary of State, Commonwealth of Kentucky.

Lewis A. Vincent, General Manager, National Board of Fire Underwriters, outlined future problems in fire protection during the closing session of the meeting.

Allen L. Cobb, Safety Supervisor, Kodak Park Works, Eastman Kodak Company, Rochester, N. Y., is the newly elected president of the NFPA.

An interesting outline of new developments in automatic sprinkler protection was presented by Norman J. Thompson, Director, Factory Mutual Laboratories.

During the day-long session devoted to industrial fire problems one of the featured speakers was Arthur P. Dunlap, Carbide and Carbon Chemicals Company, who outlined procedures of investigating industrial fires.

T. S. Repplier, President of the Advertising Council, explained how that organization operates to present fire prevention messages of the NFPA to the public through newspapers, radio and TV programs.

Stanley F. Withe, Chairman, NFPA Committee on Public Relations, described the new campaign designed to make "Sparky," the fire dog, a national figure in the promotion of fire safety. (See *Fire News* for May, 1952.)

(*Below*) Feature speaker at the second annual meeting of the Society of Fire Protection Engineers was George Burpee, Vice President, American Society of Civil Engineers.

(*Below*) Chief George C. Hood, Fire Prevention Bureau, Fort Wayne, Indiana, described activities during Fire Prevention Week in that city that won first prize in the NFPA Fire Prevention Week Contest.

(*Below*) Merwin M. Brandon, Vice President, Underwriters Laboratories, Inc., presided as Chairman of the Electrical Session which was held during the first two days of the Annual Meeting.

"It Was Tough to Start TOFF"

By Floyd L. Bergman, Secretary, Rice Lake Township Organized Fire Fighters

Here's how a rural fire department in Minnesota utilized good public relations to build a successful organization, despite early disappointments and misfortunes. The Rice Lake Township Organized Fire Fighters are known as "TOFF" and have an NFPA membership with many members subscribing to FIREMEN Magazine.

IT WAS during 1948 that residents of Rice Lake Township, Minnesota, took steps to correct an unenviable record of fire losses and organized a rural fire department. Until that time each fire produced its share of earnest conversation about organized fire protection, but conversation was the only result. However, after a spectacular blaze in June, 1948, completely razed a nearby school, ten of the residents finally organized a unit known as TOFF which had the problem of protecting 34 square miles of territory — a rural area without visible income or a population center from which to operate.

After a poorly attended public meeting a drive was started to raise funds and interest by contacting each of approximately 1,000 homes in the Township. Only one out of every ten families thought well enough of the project to give the requested donation of ten dollars.

With the money thus collected and with the proceeds of our first annual "Fireball" we purchased a "beat-up" 1935 truck chassis and a small portable pump. Then with a 650-gallon gasoline tank that had been donated we assembled a piece of fire equipment. (This still serves as a water carrier and as a second fire truck.)

In the fall of 1948, even before this apparatus was completed, we were called for many grass fires, a forest fire, and some minor house blazes. Then came the frost and we realized that we needed a garage for our home-made truck. But before this could be accomplished our truck, stored in a farmyard, froze and broke down completely, and we had no money for repairs.

OUR committee on finances then began a $6-per-home subscription mailing campaign. After a few articles in the local papers a few subscriptions began to dribble in. Then came the blow! A home burned to the ground within a few blocks from our incapacitated truck. TOFF received much adverse publicity because we were not prepared for the fire. Six-dollar subscriptions dropped off completely, but not before we managed to buy a new truck motor.

Meanwhile our assistant chief had completed his project of converting his family car garage into a heated storage place for our truck. But interest was dropping among the men who had first participated in our fire organization and the remaining group numbered about thirty. A few of us decided to conduct a perpetual publicity campaign.

PRACTICALLY reorganizing in 1949, we established a full-scale program of public education on volunteer fire departments. In addition to many news and picture features in the two newspapers that serve our area, we created a clown for parades. We built floats, organized a ladies auxiliary and sponsored public entertainment in the form of a variety show, "Funfest," which has packed the school auditorium for the past two years. Not stopping at this, we imported a name band and hired the largest hall for dancing available in Duluth to raise funds for our annual "Fireballs."

Funds were being built up, but now the residents needed an annual report of our finances. We gave them not only this but also a complete four-page newspaper containing news articles and pictures accumulated during the year. Printed by the *Duluth-Herald* and *News Tribune* to resemble their evening final edition circulated in our area, it was completely paid for by advertising and it has been a popular addition to the department public relations ever since.

The best equipment can't control bad fires all of the time. We recognized this and began a strenuous fire prevention program also. We joined several firemen's organizations to aid us in this, among them the NFPA. Each fire prevention week saw TOFF promoting this campaign, visiting schools, giving talks, circulating posters and comic books (from the NFPA) and holding timed fire drills and school building inspections. Con-

Fireman James Lobb displays the newspaper published annually by TOFF to promote interest in department accomplishments and needs.

TOFF Chief John Waldhoff shows TOFF's 1950 Studebaker truck with a Barton front-mounted 500 gpm pump and a 350-gallon booster tank. The department also has a 450 gpm pumper that was made by the first group of volunteers.

centrating on the school children (any town's best advertising medium), we organized a Junior TOFF organization distributing member cards and comic books in return for completed home inspection forms.

DURING all this activity, the TOFF financiers again sent out six-dollar subscriptions and made personal contact follow-ups. Our public relations campaign was having telling effects for we managed to sign up about one-third of our residents, with another third promising eventual support. Then we bought 1½-inch hose and other small equipment, knowing our homespun truck was entirely inadequate.

For Fire Prevention Week of October, 1949, we invited Henry Forstner of Madelia, Minnesota, to demonstrate a fire truck. It had a Barton front-mounted 500 gpm pump and a 350-gallon booster tank. We set our sights on this apparatus and spent all effort to acquire it. Completely out of our budget at over four thousand dollars, it still was within the budget of our townboard. After searching through ancient volumes on township law and after attorney-general opinions and many "heated" discussions with the board, they stated their "willingness" to consider the purchase of a new truck.

Not entirely satisfied with this statement, we obtained a 30-day trial of the truck. This was called "high pressuring" for we drove into the back yards of various board members and influential residents shooting up fountains of water in an impressive display. We call it luck, for in the 30-day period — the Christmas season of 1949 — three homes were saved in one week by this new truck while the homemade truck broke down again. Needless to say, the truck didn't go back after the annual town meeting.

The purchase of our new truck did not end all problems. First, it would not fit in any car garage. Therefore, it was placed in storage and had to be filled with water before going to a fire. Also, our phone alarm system was not infallible. To aid in the latter, we scraped up our last dollars and installed an electric, automatic alarm system which has improved the situation somewhat. Even today TOFF is operating on a limited budget with both trucks housed in "borrowed" quarters.

The event which I think was the greatest achievement of TOFF, besides an 81 percent saving on fire losses, was to establish, by annual proclamation of our state governor, a "Volunteer Firemen's Day" in October each year on the Saturday prior to Fire Prevention Week. So far the idea hasn't spread much, but I have hopes that some day there will be a national "Volunteer Firemen's Day" as a tribute to the large number of the nation's unpaid firemen. This could be the day for the annual firemen's banquet and awards programs for any volunteer fire department.

During my three years as secretary of TOFF, I was always proud of its achievement and we continually tried for improvement. I wouldn't trade a brotherhood of volunteer firemen for any other in the world.

NFPA No. 192
Standards on Volunteer Fire Departments for Rural and Small Community Service
48 pages — Fifty cents. *Write to*
National Fire Protection Association
60 Batterymarch Street, Boston 10, Mass.

Hose Thread Standardization in Canada

LAST year the Canadian Standards Association adopted a standard for 2½-inch hose couplings and hydrant butts specifying 5 threads per inch and other differences from the NFPA 7½-thread standard. The Province of Ontario has undertaken a program to convert existing equipment to the new standard, Canadian Federal Government funds being used to cover about half the cost. No other province has made any move in a similar direction.

The Canadian Section of the American Water Works Association, feeling that the 5-thread standard had been adopted in haste without sufficient investigation, had the matter considered by a committee which reported overwhelmingly in favor of the 7½-thread standard. Without a dissenting vote, the Canadian Section, on May 26, authorized a resolution recommending that the Canadian Standards Association reconsider the matter.

1952 Edition of Municipal Year Book

The Municipal Year Book, 1952. Clarence E. Ridley and Orin F. Nolting, editors. International City Managers Association, 1313 East 60th Street, Chicago 37, Illinois. May, 1952. 604 pp. $10 postpaid.

THE nineteenth annual volume of the Municipal Yearbook has just been published. This 1952 edition contains 19 major tables of information regarding personnel, finances, and activities of cities in the United States and may be obtained from the International City Managers Association at the above address.

The Year Book shows 1950 population figures for each U. S. city of over 5,000, together with an analysis of urban population changes. It also has an analysis of population changes in metropolitan areas and a list of metropolitan and urbanized areas as defined by the Census Bureau.

In addition to several new features, the book contains the names of city officials, including fire chiefs, plus inventories of fire department equipment, manpower and a summary of fire losses in each city.

". . . at Hard Labor."

Four school boys in Cortland, New York, recently were "sentenced" to one day's hard labor scrubbing the fire house in that community. Police and school officials authorized the punishment when the boys admitted turning in a false alarm. (*World Wide Photo.*)

FIRES IN THE NEWS

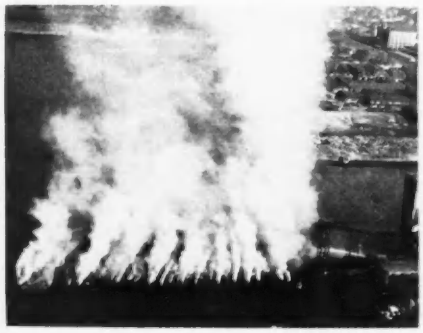
Eastern States Petroleum Refinery, Houston, Texas. May 11. (*United Press Photo.*) An estimated loss of $100,000 resulted when fire involved this refinery. The Houston Fire Department responded with 13 engine, 2 ladder and 2 other companies and used twenty-five 2½-in. lines with fog and foam before the fire was under control.

Warner Brothers Studio, Burbank, California. May 18. (*United press Photo.*) Fire spread rapidly through combustible movie sets for more than two hours and caused damage initially estimated at $1,500,000. Studio and city fire departments responded and concentrated on close exposures because of the rapid spread of fire, which destroyed the largest sound stage on the property and many film sets.

General American Tank Storage Company, Corpus Christi, Texas. May 17. (*United Press Telephoto.*) Fire fighters had a difficult problem of protecting exposed tanks and a residential area during this fire. Shortly after a tank containing 50,000 gallons of fuel oil exploded the supply of foam was exhausted and more than 17 hours of fire fighting were required before control was established. At least 14 tanks, containing oil, were destroyed. Estimated loss was in the vicinity of $1,000,000.

Loft building, New York, New York. April 23. (*N. Y. Daily Mirror Photo.*) Fire started in an open loft on the second floor of this 5-story brick building and when fire fighters arrived had extended through the third and succeeding floors to the roof. It then involved the roof of an adjacent building by burning through a wall and abutting beams. Seventeen fire fighters were injured and loss was estimated at $500,000.

(Below) **United Grain Growers, Vancouver, British Columbia,** May 7. (*United Press Photos at center and right.*) A railway box car struck a gasoline operated welding generator which was being used in the repairing of a ship next to the dock. Gasoline spilled and ignited on the creosoted pilings, then spread rapidly through a warehouse and freight shed and othe-buildings of this grain terminal. A total of 6 engine companies, a ladder company and a fire-boat were employed but the dock was totally destroyed and damage to buildings, ships, and cargo was estimated at $1,370,000.



Barns Can Be Saved!

By Howard S. Russell, Member, NFPA Committee on Farm Fire Protection,
Mutual Farm Underwriters, Waltham, Massachusetts

Spontaneous ignition fire visits the Townsfield Farm in West Brookfield, Massachusetts, but fire fighters make a good stop.

SPONTANEOUS ignition in hay stored in a barn can be prevented. However, if it does occur, and both the farm owner and fire departments are alert, there may still be a chance to save farm property. This was well illustrated at the Clinton L. Townsend farm in West Brookfield, Massachusetts, on July 26, 1951.

The wet summer of 1951 was bad for hay making and storage in New England. At the Townsend farm a big, T-shaped, hip-roofed barn had been filled to the rafters with 90 to 100 tons of hay. For some days previous to July 26 neighbors are reported to have noticed an unusual odor coming from this barn.

About eleven o'clock that morning a hired man, working in the barn, ran to Mr. Townsend and shouted: "Smoke is coming from the hay mow." The West Brookfield Fire Department, headed by Chief Ralph O. Allen, was called immediately. Mutual aid assistance also responded from the adjoining towns of Brookfield and East Brookfield.

PUMPERS were operated at suction from Coy Brook, a stream that runs right through the farm. Each pumper supplied two 2½-in. lines. In addition two 1½-in. lines were coupled to a hydrant on an 8-in. water main in front of the farm buildings. Both fog and solid streams were used.

No fire was visible at the start of operations but it was very hot around one of the roof braces at the top of the mow. Here fire fighters dug down into the hay to a depth of about ten feet. Fumes and smoke necessitated the use of a smoke ejector, while water from a small hose line was directed on the hay.

Thinking to give better ventilation, someone opened a door between the adjoining cow stable and the barn. The extra draft was just enough to cause the fire to break out. Soon the whole barn was filled with flames.

Despite this situation, fire fighters made a good stop. The barn was saved, except for the rear wall and some blackening of the floor, walls, and roof. The cow stable addition was not harmed at all.

The amount of water used required holes to be cut in the planking to keep the floor from collapsing from the combined weight of water and hay.

Mr. Townsend, the owner of the property said to me later, "If we hadn't had the brook and the hydrant, we'd have lost the barn. We needed both."

While the firemen deserve great credit for a good stop, there was far more work than glory involved. The salvage job was terrific. The hayfork winch pulled from the floor when it was used to draw the hay out. The hay was so soggy and wet that it had to be dug out by hand and the job took ten men six days. Firemen stayed on duty night and day until all the hay was removed.

A loss of 90 tons of hay is not to be sneezed at in these days of high prices for all kinds of feed, but that loss was small compared to what might have happened if this great barn with all the silos, farm machinery, and 150 head of cattle had become involved. The highest praise should go to Chief Allen and to the chiefs of the neighboring towns for a job well done.

NOW what are the lessons from this fire?

First — farmers can't be too careful about getting hay properly dried.

Second — watchful attention should be paid to any unusual odor. (Both of these statements hold especially true in a wet year as 1951 was in Massachusetts.) Watchfulness may be needed even in early winter, for considerable haying is done late in the fall on second growth clover and aftermath. Several years ago, in this same county, hay stored as late as October or November burned barns in December and January.

Third — town officials and fire departments should have a practical mutual aid agreement with surrounding towns. Here in the agricultural county of Worcester, the largest in Massachusetts, a mutual aid plan operates smoothly with each fire department helping the others on the big fires.

Storage of damp hay was held to be the cause of a spontaneous ignition fire in this barn. Fire fighters made a good stop in confining fire to this area and saving close exposures.

Fourth — there is no substitute for plenty of water. Some chiefs prefer operating from hydrants. Others would rather use a pond or a stream rather than a hydrant on a small main. In this Townsend farm fire both were used and both were necessary.

Fifth — the skill, training and experience of the fire departments at this fire had a lot to do with success. Chief Allen and the other chiefs knew what to do and how to do it. The result is partly to be ascribed to the program of instruction carried on for more than a decade by the Massachusetts Department of Education in cooperation with the Massachusetts Fire Chiefs' Club and other fire prevention organizations.

ONE note of caution! On spontaneous fires, the greatest of care should be used in sending men out onto a hot hay mow. There is real danger of someone dropping out of sight into a hot pocket.

From NFPA No. 492. Table of Materials Subject to Spontaneous Heating. (Also contained in National Fire Codes, Volume I.) "Wet or improperly cured hay is almost certain to heat in hot weather. In some cases it is unsafe to store material that has partially heated and in every case if the heating has progressed to a point where charring is evident and water has been used to stop the heating." — *Ed.*

Operating Fire Department Pumpers

These articles on pumper operation have been published periodically in FIREMEN *since June, 1951; based on material prepared by a subcommittee of the NFPA Committee on Firemen's Training to serve as a guide for training of pump operators.*

Relief Valves and Pressure Governors

IT IS a fundamental of firemanship that in most cases water should be used only when it contacts burning materials or absorbs heat. Accordingly, the control of most fires calls for a wise and intermittent use of water streams. In the days before pumpers were equipped with automatic pressure relief valves and governors, open nozzles generally had to be employed rather than shut-off or controlling nozzles, because it was not possible to adjust quickly the output of the pumper. Excessive water damage frequently resulted.

When a stream is in operation the pump and engine are working under a load and at certain speeds to impart pressure or velocity to the stream. Part of this pressure is used up in friction loss in the hose and part is used as nozzle pressure. Some pressure may also be needed to overcome any elevation of the nozzle above the pump.

When the flow is suddenly shut down this affects the engine load. Besides the change in work load, pressure surges may be set up by the shutting of nozzles as the flow of water is decelerated.

When the load is suddenly or rapidly reduced, the engine tends to speed up unless automatically controlled. Additional pressure may be put on other hose lines in use, endangering men operating these lines. Accordingly, as the pumping load is reduced by the closing of a nozzle there is the necessity for automatically reducing engine speeds.

WITH positive displacement pumps, when a nozzle is closed, it is necessary to automatically bypass the water being pumped to return it to the suction side of the pump. As water is practically incompressible something would have to give if a positive type pump continued to pump water into a hose line on which the nozzle was closed.

A centrifugal type pump has open waterways and automatically provides a churning action when the nozzle is closed. However, even with these pumps it often becomes necessary to by-pass some water in order to prevent heating if the pump is running idle for an appreciable period of time. (This frequently is accomplished by circulating water through the booster tank.)

A pressure governor is called for on centrifugal pumpers. This governor should be of a type that can be readily operated or adjusted by the pump operator while standing at the pump operator's panel. Engine speed governors that can only be set or adjusted at the engine under the hood while the operator adjusts the pressure at the pump controls are not practicable nor a satisfactory safeguard for the men and equipment.

Some governors will not control pressures lower than 170 lbs. when a centrifugal pump is operating in series or pressure position. Thus when lines are being supplied in pressure operation the pump operator must be constantly alert to slow down the throttle if the load is decreased and the motor speed becomes excessive. In this connection the quick release type of throttle at the pump operator's position is of great value and importance. A good pump operator is constantly watching his pump gages, including the tachometer or motor speed indicator, as well as listening to the engine for evidence that nozzles are being opened or closed.

A PRESSURE regulating governor is usually constructed so that an increase in pressure above that of the governor setting causes the gasoline engine to slow down. This is accomplished by linking the governor to the motor throttle controlling the carburetor. The action is to reduce the motor speed as the pumping load is reduced, keeping the pump pressure substantially the same as the governor setting.

NFPA Specifications for Motor Fire Apparatus require that an automatic relief valve or pressure regulator shall control the speed of the pump so that "with a 1⅛-in. shut-off nozzle on 300 ft. of 2½-in. hose and an engine pumping at 120 lbs. pressure, there will not be an increase of pressure of over 20 lbs. when the shut-off nozzle is closed slowly."

After a nozzle is opened and the pressure at the pump drops, the engine speeds up to the pump throttle setting or to the governor setting whichever may provide the lower speed. When additional lines are opened it is usually necessary to advance the throttle to increase the engine speed to maintain the pressure called for by the governor setting.

When a nozzle is closed on a 2½-in. line and the engine speed governor for pressure relief is not set to operate properly, the engine driving a centrifugal pump speeds up and races wildly if no other streams are in operation. If other streams are in operation, the energy is transferred to the other lines in service, with attendant danger to the hose crews.

Positive Pumps

The pressure relief valve on a positive displacement pump is fundamentally a valve held closed by a pressure slightly greater than the pressure being pumped. The force holding the relief valve closed may come from an adjustable spring or from a difference in the area of the faces on the two sides of a valve. When properly adjusted this force keeps the valve seated as long as the nozzle is kept open. When the nozzle is closed the pump continues to build up pressure. When this pressure is greater than the setting of the relief valve, the valve opens and water is by-passed from the discharge side of the pump back to the suction side. Water continues to circulate in this manner until the nozzle is again opened when the pressure on the discharge side of the pump drops causing the relief valve to close because of the higher setting.

With positive type pumps, when the relief valve is not properly set and a nozzle is suddenly closed, the engine usually will stall but sometimes the pump itself is ruptured or the hose breaks if no other lines are open to which the load may be transferred.

(*Please turn to page 24*)

Dates to Remember

Maryland: The Annual Short Course will be held on the campus of the University of Maryland at College Park, September 2–5.

Massachusetts: The 79th Annual Conference of the International Association of Fire Chiefs will be held in Boston, August 25–28. Headquarters will be at the Hotel Statler.

Montana: The 13th Annual State Firemen's School will be held at Polson, August 27–30.

Nebraska: The Nebraska State Volunteer Firemen's Association will hold their 70th Annual Meeting at the Hotel Fort Kearney, Kearney, Nebraska, October 20–22. For information contact Russell D. Salak, Secretary-Treasurer, P.O. Box 312, Schuyler, Nebraska.

Pennsylvania: The 14th Annual Pennsylvania Fire School will be held at Lewistown, August 4–8. For information write to Edgar A. Spotz, Public Service Institute, P.O. Box 911, Harrisburg, Pennsylvania.

Tennessee: The Tennessee State Fire Service School will be held at Murfreesboro, August 25–29. Write to Captain Homer S. Elkins, Itinerant Fire Department Instructor, Tennessee State Board for Vocational Education, Trade & Industrial Service, 215 Chestnut Street, Chattanooga, Tennessee.

Texas: A Texas Fireman's Training School will be held at Texas A & M College, College Station, August 24–29. Write to Colonel H. R. Brayton, Director, A & M College, College Station, Texas.

Virginia: The 1952 Virginia State Fire School will be held in Norfolk, September 8–12.

Washington: The Annual Conference of the Washington State Firemen's Association will be held in Yakima, August 20–23. For reservations write to Reservation Committee, care of Yakima Fire Department, Yakima, Washington.

Washington: The 21st Convention of the International Association of Fire Fighters will be held Auugst 11–15. Information on reservations may be obtained from the Seattle-Northwest Convention Committee of the I.A.F.F., c/o New Washington Hotel, Seattle.

West Virginia: The 22nd Annual West Virginia Fire School will be held in Morgantown, July 21–25. Further information may be obtained from R. E. Hanna, Jr., Director, Fire Service Extension Schools, West Virginia University, Morgantown, West Virginia.

Wisconsin: A Wisconsin State Fire School will be held at Madison, August 11–13. Write to J. J. Lichty, Assistant Director of Bureau of Community Development, Wisconsin University, 208 Extension Building, Madison, Wisconsin.

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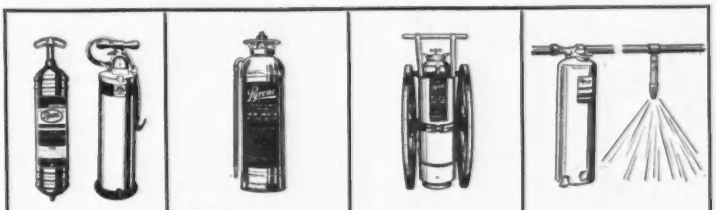

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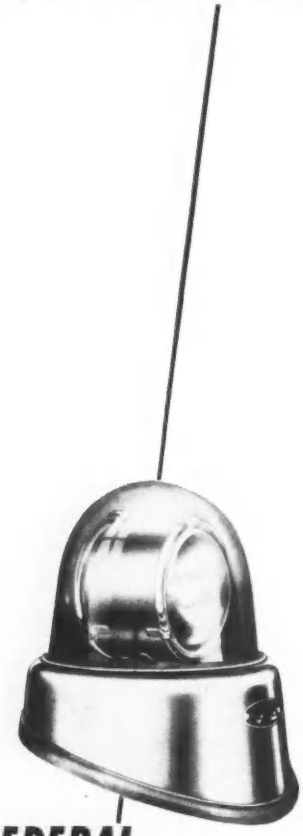

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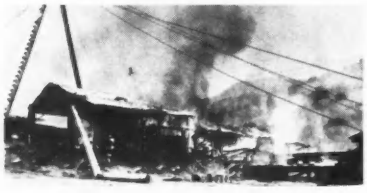
Industrial Fire Protection

Check Those Sprinkler Valves

THIS plant, consisting of a group of adjoining 1-, 2-, and 3-story buildings, was almost completely sprinklered, but after fire occurred on April 22 investigation disclosed that the sprinkler control valve was found completely closed. Earlier in the year two sprinkler heads had required replacement after they had extinguished a fire. Apparently the sprinkler control valve had remained closed from that time.

The buildings were used for rayon cloth dyeing and finishing. A watchman discovered fire in two of the buildings and telephoned an alarm. When fire apparatus arrived shortly afterwards the entire property was aflame and beyond control. Fire fighters used 20 hose streams and 3 deluge streams but the plant suffered an estimated $315,000 loss.



Welding in a Sawmill

ALTHOUGH several lumber mills in the vicinity of this Ukiah, California, lumber company had suffered fire losses during similar operations, employees in this sawmill were welding a chain inside the building in preparation for the sawing season.

Sparks from the welding dropped under the floor into sawdust that was saturated with oil from the chain. Fire enveloped the entire building almost instantly and when fire fighters from the Ukiah Fire Department arrived they could only concentrate efforts on saving exposures. There was no sprinkler protection for this building and fire fighters had to pump from a distant creek to protect exposures. Loss amounted to $27,500.

Solvent Vapors in Attic

THE fact that an adverse wind tended to blow into the ventilators of a dry cleaning plant in Allentown, Pennsylvania, is held to be the cause of a fire in the building on May 9. Fire originated in an unsprinklered area of a partially sprinklered attic and was believed caused by heat from uninsulated drier vents passing through the attic. The wind caused vapors of 140 degree F. solvent to accumulate in the small attic where it was ignited. Sprinklers confined the fire to the area but fire fighters had difficulty locating the seat of the fire.

Topic for Discussion

MR. EARL F. OLSON, member of the Norris, Tennessee, Fire Department, suggests that a subject for possible discussion in the Industrial Fire Protection Section of FIREMEN is the use of paraffin by milk bottling plants for single-use containers. He points out that there appears to be a lack of experience with fires involving quantities of paraffin stacked in slabs. Perhaps some readers of FIREMEN can give additional information regarding the control of this hazard.

"Industrial Fire Protection" is a recent addition to FIREMEN devoted to the interests of members of industrial fire brigades and other fire departments responsible for the protection of industrial properties. Space limitations sometimes prevent adequate analyses of subjects pertinent to fire protection in industry but topics will be published according to the desires of readers. Any information submitted by readers will be welcomed.

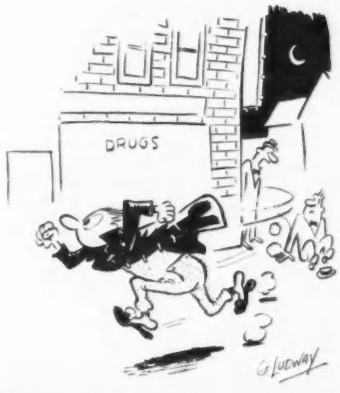
British Fire Defense Exercises

(Continued from page 11)

Plastic Pipe Lines

THE 900 gpm pumpers are fitted with a special water relaying delivery which can connect directly to 6-in. diameter emergency piping, thus obviating the need for collecting heads and delivery hose. The piping itself is made either from aluminum or new polyvinylchloride plastic. This latter material is made in 18-ft. lengths and weighs only 38 lbs. Two lengths can easily be carried by one man yet the plastic can withstand a weight of 7 tons without being damaged. This replaces the emergency steel piping of the last war.

In designing all of the emergency equipment, Home Office engineers under the direction of Chief Inspector Smith and Chief Engineering Inspector F. C. A. Shirling have given attention to reduction of weight. National Fire Service experience in the last war showed the value of emergency piping but the steel lengths then used were heavy and cumbersome. Each mobile fire-fighting column will carry one mile of 6-in. piping to provide the large flows needed to fight fires resulting from atomic attack. Heavy duty flexible rubber lengths will be provided for laying around corners and angles. The plastic piping which can be run over by a loaded lorry without damage or reduction of flow will eventually be made in 30-ft. lengths. Another advantage of the plastic, according to *Fire Protection Review*, is that it conserves expensive and scarce steel.



"It's the best goldarned volunteer fire department in the state!"

WATEROUS

dependable FIRE PUMPS

WE DON'T USE A TAPE MEASURE, but we do tailor our pumps to each make and model of engine.

By selection of the proper gear ratios, the speed, capacity, pressure and horsepower requirements of the pump are fitted to the range of speed and horsepower of each engine. Ample horsepower is assured for each pump duty at engine speeds well below allowable maximums. WATEROUS Fire Pumps have built-in surplus capacity and pressure to match the surplus horsepower of the engine. WATEROUS Fire Pumps are built by master craftsmen with years of know-how—your assurance of dependable performance.

Specify WATEROUS—write for copy of "Preferred Fire Pump Specifications"!

Waterous DEPENDABLE PUMPS SINCE 1886

WATEROUS COMPANY
80 EAST FILLMORE AVE.
ST. PAUL 1, MINNESOTA

One Pumper "Out-of-Service"

Chief Letcher A. Martin of the Henderson, Kentucky, Fire Department (NFPA Member Department) sent this picture to FIREMEN. It shows what happened to a pumper of that department when a driver of a truck carrying concrete failed to yield the right of way at an intersection. The pumper and crew were responding to an alarm for a warehouse fire. In the resultant collision three fire fighters were seriously injured as the pumper overturned on the pavement.

QRS

Flameproofing Chemicals

QRS de luxe for draperies
QRS No. 55 for glazed chintz and sheers
QRS No. 23 flame, water, mildew resistant paint for canvas
QRS No. 8 for foliage, wood, corrugated paper
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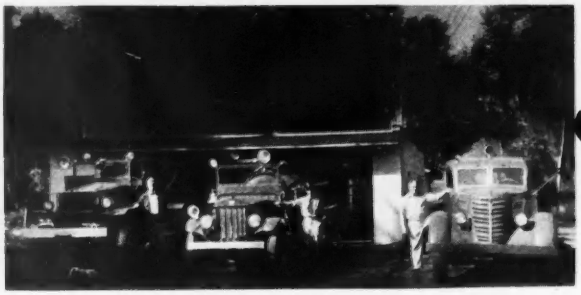
Write for free catalogue and name of nearest distributor.

Q R S NEON CORPORATION
Chemical and Process Division
170 North Halstead Pasadena 8, California



Conway Volunteer Fire Department near Orlando, Florida

THIS department operates as a non-profit organization called the Conway Volunteer Firemen's Association. Chief Leo T. Herber, Sr., Assistant Chief William W. Eldridge, President Ray W. Ramsdell and Secretary Mrs. Effie Wolfe head the 15-man organization, including 12 active fire fighters. There is also a Ladies' Auxiliary of 40 members.

Shown above is the concrete block fire station and apparatus of the department. At left is a Navy crash truck with an International chassis; in the center is a Reo truck with a 500 gpm pump and a 1000-gallon tank; and at right is a Federal truck and trailer with a 2500-gallon tank.

The department has been organized for only three years. It protects a community of 4000 population and also aids in the protection of nearby Pine Castle Army Air Base. Members participate in training programs of the Florida State Fire College.

DEPENDABLE DRESSINGS

for FIRST AID, for EMERGENCY
for DISASTER, for DEFENSE

With a distinguished record of use by the medical services of the Armed Forces, by other governmental agencies, by hospitals, by emergency and disaster units, by industrial clinics and first-aid stations . . .

Now in three sizes:
No. 1: 3" x 36" (6 in carton)
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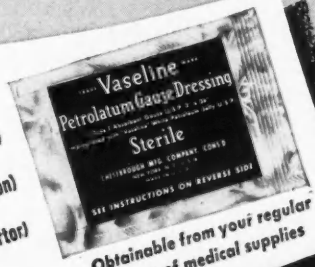
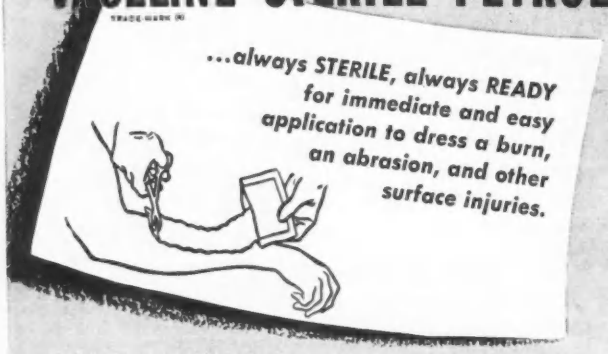


Obtainable from your regular source of medical supplies

VASELINE STERILE PETROLATUM GAUZE DRESSINGS



...always STERILE, always READY for immediate and easy application to dress a burn, an abrasion, and other surface injuries.

have been adopted by surgeons as standard procedure, by nurses as preferred matériel, by professionally-trained aid personnel as the compact, ready-made, ready-to-apply dressing of their choice.

CHESEBROUGH MFG. CO., Cons'd
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Specify these superior dressings in the foil-envelopes to your supplier.

VASELINE IS THE REGISTERED TRADE-MARK OF THE CHESEBROUGH MFG. CO., CONS'D

Two Hundredth Anniversary for Volunteer Fire Company

GOVERNOR Alfred E. Driscoll of New Jersey has set aside the week of July 6, 1952, in honor of the Relief Fire Engine Company No. 1 of Mount Holly, New Jersey. Secretary James H. Hall, Sr., states that this volunteer fire company will be celebrating the 200th anniversary of its organization on July 11th. Members of the unit, which claims to be the oldest volunteer fire company in the United States, have prepared a program for the week-long celebration.

The fire company has changed its title twice during its two hundred years of activity. On July 11, 1752, it was organized as the "Britannia Fire Company." After the United States gained its independence the name of the organization was changed to "Mount Holly Fire Company" on April 7, 1787, since members objected to the connotation in "Britannia."

The second name was held until May 9, 1805, when it was changed to "Relief Fire Engine Company No. 1 of Mount Holly," because of the organization of another fire company in the town. This title has been kept to the present. The fire company has passed through the various stages of the development of fire fighting equipment. It still possesses many of the mementos of the early days of its organization, such as hand buckets, hand pumpers and steam fire engines. The first fire house of the original organization is kept in good condition in an area behind the present station.

Other fire organizations that have developed with the growth of Mount Holly Fire Department are the Union Fire Company, organized 1805; the Good Intent Fire Company, organized 1850; the America Fire Company, organized 1858, and the America Emergency Squad, organized in 1938.

FOR SALE

PARADE UNIFORMS
COLOR — RED and BLUE
For 48 Firemen and 2 mascots

For further information write:
CAPITOL VIEW FIRE CO.
Morrisville, Pa.

Join the Parade to
INDIAN
FIRE PUMPS
and step out ahead in your fire prevention program!

INDIAN FIRE PUMPS use only clear water — no chemicals. Carrying straps are adjustable so that 5 gal. tank fits the back. It is air-conditioned so that no dampness touches the back.

Now is the time to be sure that you have an ample supply of **INDIAN FIRE PUMPS** to take care of any fire emergency that may arise. **INDIANS** are first choice of fire depts., forest rangers, lumbermen, etc. Don't take chances with fire — be prepared with **INDIAN FIRE PUMPS.**

Have You Ordered INDIAN FIRE PUMPS for Civil Defense?

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PLASTIC
No. 900

Write for Catalog 340

Cairns & Bros., Inc.
Allwood, Clifton, N. J.

116 Years in Fire Service

Operating Fire Department Pumpers

(*Continued from page 18*)

Using Relief Valve or Governor

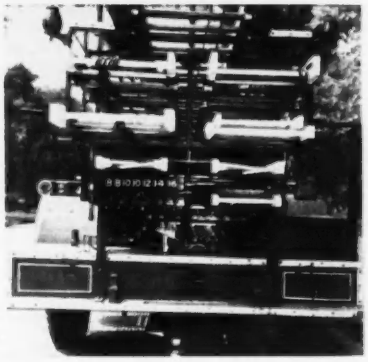
The following suggestions and precautions should be observed concerning the operation of governors and relief valves.

1. The pressure control device should be set as soon as the pressure required by the hose layout has been obtained.
2. Pressure control devices should not be relied upon to provide changes in pressure requirements. The engine throttle should be employed.
3. When a different pump pressure must be secured, the pressure control devices must be reset. Should the new pressure requirement be higher it will be necessary to disengage the pressure governor before increasing the engine speed. Should the new pump pressure requirement be less, the procedure is to decrease the motor speed as necessary and then reset the governor.
4. A relief valve can usually be set for the pressure requirement only when water is flowing through hose lines at the desired rate. On types of relief valves having an adjustment to accommodate variations in the volume of water being by-passed, the adjustment can be made only when nozzles are shut off.
5. Where several lines are in operation the relief valve setting must be high enough to permit adequate pressure for the line requiring the greatest pump pressure. This will mean that the automatic pressure regulation for other lines may not be as effective as might be desired. In this connection it is well to observe that although modern pressure regulators, properly set and maintained, are usually very efficient, they do not relieve the hose crews and pumper operators from the responsibility of shutting and opening both hose gates and nozzles slowly. It is the practice of some departments to use controlling nozzles which cannot be closed rapidly.

There is another problem in the use of pressure relief devices which cannot always be fully solved. A pump may be supplying one or more 1½-in. leader lines equipped with fog nozzles operating at relatively high pressures and a 2½-in. solid stream nozzle requiring lower pressure. Except where a pump has separate pressure stages operated independently and with separate pressure controls, the governor setting must be sufficient to maintain effective pressure on the lines requiring the highest pressure.

Rebuilt Ladder Truck

Mechanics in the shops of the St. Louis, Missouri, Fire Department (NFPA Member Department), recently rebuilt this ladder truck under the direction of Chief Master Mechanic Fred H. Witter. The trailer and ladder of the apparatus above was removed from a Mack 75-ft. power raise aerial ladder truck that had been purchased in 1930. It was then fitted to a new Mack Model A 50 truck chassis, (142 brake horsepower), equipped with special fire department air brakes, a large generator, and special fire department warning lights and signals. All ladder racks and tool compartments were rebuilt. Ladders were placed in individual compartments, eliminating "nesting." Numerals on the compartment on the left of chassis indicate length of pike poles. (*Photo by G. B. Beaumont, St. Louis Fire Department.*)



Kills Oil & Petrol Fires with SPEED & CERTAINTY

★ Nicerol is supplied in heavy gauge steel drums designed for quick release and clean pouring.

★ Nicerol can be used in any type of mechanical foam or air foam apparatus. In this case a base injection type in-line inductor is being operated.

★ The secret of Nicerol effectiveness lies in the small bubble formation. It creates a tough, efficient blanket. 3 gallons of Nicerol and 100 gallons of water will produce over 1,100 Imperial gallons of foam.

★ The above petrol and oil blaze was extinguished in a matter of seconds by a normal mix of Nicerol Foam Compound.

Meet the hazard of fire with Nicerol, the foam compound that kills any oil or petrol fire quickly and absolutely. Nicerol is a concentrate, producing a heavy type foam of closely-knit small bubbles which form a tough, vapour-tight blanket over the surface of burning oil or petrol. It is characteristic of Nicerol Foam that it flows with the fire and is highly resistant to flash-back or re-ignition. It can be used successfully in any type of mechanical foam or air-foam apparatus — is equally effective with salt water or fresh and can be stored for years without deterioration.

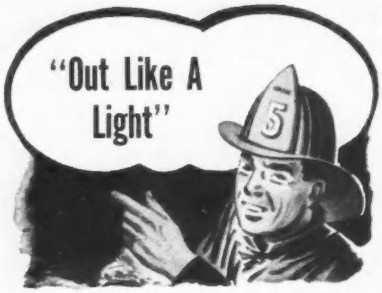
TRADE ENQUIRIES INVITED

For further particulars, samples, catalogues, etc.

The Royal Navy and the Royal Air Force use it and so do Oil Companies, Fire Equipment Manufacturers, Civil Air Lines, several Commonwealth and Foreign Government departments, and Fire Brigades throughout the world. What better recommendation?

NICEROL LIMITED, LISBURN, N. IRELAND

Telephone: Lisburn 2027 *Telegrams: Nicerol, Lisburn*



How fast is UNOX Penetrant—Wetter Water? A Miami, Florida Lieutenant said, "It's a good deal like turning out a light. By the time we could walk from one end of this 6-room house to the other with two 1½-in. fog lines, the fire was out."

You want speed too. Get UNOX Penetrant for your Department.

"UNOX" PENETRANT

UNOX is a trade-mark of Union Carbide and Carbon Corporation.

CARBIDE AND CARBON CHEMICALS COMPANY
A Division of Union Carbide and Carbon Corporation
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Los Angeles "Spring Clean-Up" Campaign

IN COOPERATION with the NFPA, the Los Angeles County Fire Department designated April 14 to 30 as "Spring Clean-up Time," in the unincorporated County area.

The campaign this year was to serve a dual purpose: first, to eliminate common fire hazards in the home resulting from the accumulation of waste combustibles, poor maintenance, and housekeeping conditions in dwellings, private garages and dooryard premises; secondly, to stimulate the interest of householders in the Civil Defense Program.

Firemen from County Engine Companies visited over 100,000 homes. They checked dooryard premises for rubbish conditions, defective incinerators, excessive dry weeds and grass adjacent to buildings, and unnecessary accumulations of combustible materials. They also distributed fire prevention literature, including "Fire Safety Plan for Peace—For War" prepared by the California State Office of Civil Defense.

Cooperating fully in this campaign was the Metropolitan Rubbish Collectors Association. This Association consists of some twenty independent companies, with over fifty trucks engaged in regular weekly pickup of combustible rubbish in Metropolitan Los Angeles and vicinity. Many of these trucks are equipped with hydraulic loaders.

On Sunday, April 20, the entire fleet of this Association assembled at Hollywood Park Race Track in Inglewood, where the equipment was inspected by County Supervisor Raymond Darby, Don C. Lapp, President of the Association, Gordon Larson, Director of the Los Angeles County Air Pollution District, and Cecil R. Gehr, Chief Engineer of the Los Angeles County Fire Department.

The NFPA poster "Don't be an Ash — Get Rid of the Trash" was prominently displayed on all trucks to carry the "Spring Clean-up" message throughout the County. All combustible rubbish was hauled to cut and cover dumps, thus eliminating both the hazard and air pollution attendant to back-yard burning.

Better Hose Care--- with CIRCUL-AIR

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THE AIR CONDITIONING
FIRE HOSE DRYER

PATENTED

Circul-Air is the patented, electrically operated hose dryer which circulates prewarmed fresh air through coiled wet hose at the rate of 5 to 6 air changes per minute. It's designed to lengthen hose life, improve the appearance and functional design of new fire houses, and to save floor space and hard work. NO OTHER DRYING METHOD IS SO FAST—SO ECONOMICAL—SO EASY TO USE.

ACCEPTED • APPROVED • RECOMMENDED

ACCEPTED as the standard drying medium in over 1500 fire departments — APPROVED by the leading testing laboratories — RECOMMENDED by fire hose manufacturers and Fire Chiefs "all over America."

If you are building, send for free copy of "Fire Station Design"

NEW HOSE DRYING MANUAL TELLS HOW TO DRY, STORE AND CONSERVE FIRE HOSE

May we send you one?

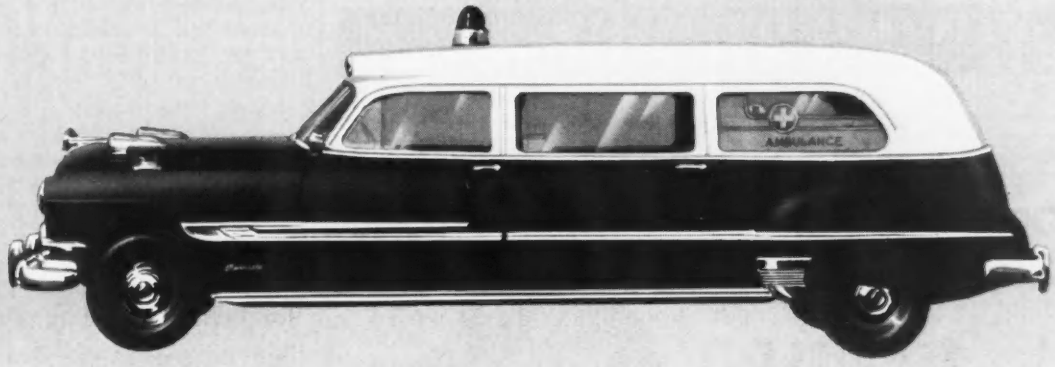
THE CIRCUL-AIR CORPORATION
575 East Milwaukee Detroit 2, Michigan

New CUSTOM DIMENSIONS

★

★ *New Thinking Is Swinging*

Leadership to Barnette



HEADROOM OF 46 INCHES
DOOR HEIGHT OF 39½ INCHES
DOOR SWINGS TO CURB FOR SAFETY
SPARE TIRE IS BEHIND DRIVER'S SEAT
MORE GLEAMING CHROME INSIDE AND OUT

THE BARNETTE "800" AMBULANCE —with its new custom dimensions and features, assures greater safety and service, especially for heart cases. Again BARNETTE leads with custom-made quality at assembly line cost.

GUY BARNETTE & CO.
DUDLEY AND EASTMORELAND • MEMPHIS, TENN

FUNERAL CARS • AMBULANCES • SERVICE CARS

You bet I specify
MIDWESTERN Protective Clothing
...my men deserve the BEST!

PROTECTION
COMFORT
SERVICE

There is no substitute for the extra protection, built-in comfort and longer wear you get by specifying Midwestern clothing. In our vast selection of rubber materials you will find the type of fabric exactly suited to your climate and needs. You can count on the softness and flexibility of the high-grade materials used to meet your most exacting requirements for lasting comfort and rugged service.

Due to government requirements for Midwestern Protective Clothing, prompt delivery will be assisted if you place your order early. For complete information, have your Midwestern dealer show you our full line. A letter to the factory will also bring you literature and material samples for your inspection.

MIDWESTERN MFG. CO., Mackinaw, Illinois
Manufacturers of the Famous MACKINAW Coats

SENSIBLE
FOR ALL YOUR HOSE CONNECTIONS

improved
SENSIBLE
LUG COUPLINGS
(ROCKER LUG TYPE)
insure
QUALITY and SAFETY

The improved Powhatan "Sensible-Lug Couplings" are precision tooled and manufactured of only the best high-grade materials. They set a standard that is "tops" in this specialized field of fire-fighting equipment. The curved surfaces of this modern coupling enable the hose to glide easily over all obstructions, thus preventing snagging, an important safety and economical feature appreciated by those who know.

SPECIFY "SENSIBLE" LUG COUPLINGS ON YOUR NEXT HOSE ORDER

POWHATAN BRASS
and IRON WORKS
RANSON, WEST VIRGINIA
Phones 93 & 94 Charles Town, West Virginia
Established 1892

Los Angeles Training Films

THE Los Angeles Fire Department has just completed 3 of a series of 10 basic operational fire personnel training films, designed primarily to better acquaint new members with the proper handling of fire-fighting equipment. The 16 mm sound, black and white films are titled "Hose," "Ladders," and "Hose Lays with Two Piece Companies," and are available to other fire departments and plant fire brigades.

Purchase price of each is $50, plus mailing charges. Loan or rental copies are not available. All inquiries should be directed to Cinesound Company, 5968 Santa Monica Blvd., Hollywood 38, California.

IAFF Publication

THE International Association of Fire Fighters has published an attractive 8-page pamphlet entitled "The Professional Fire Fighter. It presents a simplified explanation of the duties and activities of fire fighters and fire officers in the modern fire department, together with descriptions of a board of fire strategy, the modern fire department and the role of fire prevention. Further information may be obtained by writing to the International Association of Fire Fighters, 901 Massachusetts Avenue, N.W., Washington 1, D. C.

Joe Fetters Moves to Missouri

NFPA member, Joe I. Fetters, member of NFPA Committee on Firemen's Training, who for twelve years headed the Nebraska Fire Training Program, has accepted an appointment as Administrative Assistant of the Adult Education and Extension Service of the University of Missouri. He will be responsible for administering the Missouri firemen's training program and will make his headquarters at Columbia.

FOR SALE

1928 American-LaFrance Triple Combination Fire Truck

500 gpm, equipped with the following: 1950 Buda L. O. 525 Motor, Vacuum Booster Brakes, 640 G. Water Storage Tank, Top Mount Booster Reel, with 250 ft. of 1" H.D. Booster Hose. Price $2,000.

Address all inquiries to **Hilda B. Heckmann, Village Clerk, Flossmoor, Illinois**

Membership Report

READERS of FIREMEN are reminded to notify the NFPA Executive Office, 60 Batterymarch Street, Boston 10, Massachusetts, whenever irregularities occur in the mailing of the magazine. About 29,000 copies of FIREMEN are mailed each month and mistakes can occur and prevent subscribers from receiving the magazine. If for any unknown reason you should miss your copy of FIREMEN, or any other NFPA publication to which you are entitled, please notify the NFPA Executive Officepromptly.

NFPA Welcomes:

The following 29 fire chiefs and fire departments who have enrolled as NFPA Members. Current NFPA Membership is 1,860 fire departments and 24,604 men.

Alaska: Cordova Volunteer Fire Department, Cordova.

Arkansas: Augusta Fire Department, Augusta; Blytheville Fire Department, Blytheville; Decatur Fire Department, Decatur; Forrest City Fire Department, Forrest City; Greenwood Fire Department, Greenwood.

California: Blythe Fire Department, Blythe. Chief George Lee, Chula Vista Fire Department.

Delaware: Delmar Fire Department, Delmar.

Illinois: Eldorado Volunteer Fire Department, Eldorado.

Iowa: Massena Fire Department, Massena; Middle Fire Department, Middle.

Maryland: Aberdeen Fire Department, Aberdeen; Goldsboro Volunteer Fire Company, Goldsboro; First Hagerstown Hose Company, Hagerstown; Hillandale Volunteer Fire Department, Incorporated, Hillandale, Silver Spring; Leonardtown Volunteer Fire Department, Leonardtown; Newark Volunteer Fire Company, Newark.

Michigan: Buchanan Fire Department, Buchanan.

Missouri: Parkville Volunteer Fire Department, Parkville.

New Hampshire: Hook & Ladder Company No. 1, Franklin

New Jersey: Chief Robert M. Ockenlander, Brigantine Fire Department, Brigantine.

New York: Roosevelt Fire Department, Roosevelt.

Ohio: Sylvania Township Fire Department No. 2, Toledo.

Pennsylvania: Essington Fire Company, Essington; Fame Fire Company, West Chester.

Rhode Island: Barrington Fire Department, Barrington.

Washington: Pierce County Fire District No. 9, Tacoma.

West Virginia: Madison Volunteer Fire Department, Incorporated, Madison.

. . . MEANS ANOTHER CALL FOR

Scott Air-Pak

(TRADE MARK)

because fire in any unventilated area consumes the oxygen in the atmosphere and produces deadly, invisible gases. ONLY self-contained breathing equipment provides safety in such oxygen-deficient areas. SCOTT AIR-PAK supplies cool fresh air for breathing freedom and protects the eyes from irritating smoke. There's no fogging of lenses to restrict your work inside a burning building. SCOTT helps you fight fires faster . . . safer.

That's why thousands of Fire Departments are using SCOTT AIR-PAKS . . . You're safe when you're wearing a SCOTT.

Your Scott Distributor will gladly give you a FREE DEMONSTRATION.

WRITE TODAY
. . . for full details on Scott Air-Pak Safety Breathing Equipment in Bulletin 510.

Scott Air-Pak (above)—½ hour minimum duration at extreme exertion. Weight as worn 29½ lbs.

ESTABLISHED IN 1932 Scott FOR SAFETY—FOR SERVICE

SAFETY EQUIPMENT DIVISION
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236 ERIE STREET LANCASTER, N. Y.
Canada: Safety Supply Co., Toronto — Branches in principal cities
Export: Southern Oxygen Co., 157 Chambers Street, New York 7, N. Y.

The HALE TYPE "BL" Discharge Valve

. . . Available on All HALE Fire Pumps

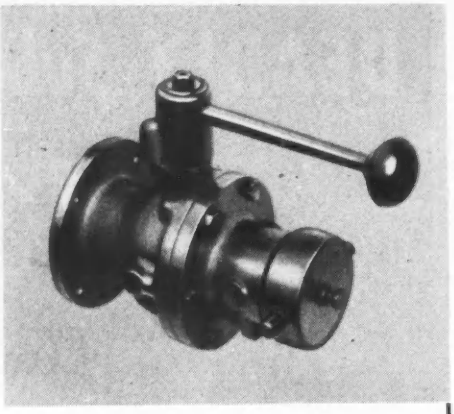
Easy-turning at all pressures, the Hale Type BL Discharge Valve can be "gated" and locked into position by a slight turn of handle to prevent creeping. The water flow is through a perfectly round waterway for low flow resistance.

Many tests have proved the valve's reliability and freedom from service troubles.

The "BL" valve is not sensitive to dirty water and will hold high pressure or vacuum. Replacement parts are inexpensive, easy to install and do not have to be "ground in." Ample handle clearance and easy turning mean freedom from "knuckle busting."

The Hale Type BL Discharge Valve is typical of constant Hale improvements resulting from constant research.

For detailed information send for Bulletin No. 293 on the Hale BL Discharge Valve.



OUTSTANDING FEATURES

- Turns easily at all pressures.
- Will not leak at pressure or vacuum.
- Circular section through valve cuts flow loss.
- Not sensitive to dirty water.
- Easily serviced . . . no "grinding in."
- Slight twist of handle locks valve into any desired position for gating.

HALE FIRE PUMP COMPANY
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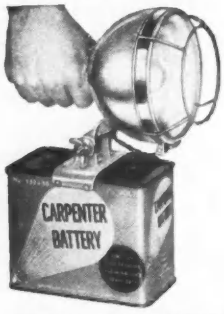
Hale Fire Pumps Are Built In All Standard Capacities

CARPENTER LIGHTS



HIGH POWER PORTALITE

The finest dry battery portable light made. Mile range. Powerful searchlight beam for 8 to 10 continuous hours. Instantly ready for any fire. Diameter 6". Size 14" high x 10" x 6". Only 9 pounds.

ALL KINDS OF EMERGENCY AND SPECIAL LIGHTS FOR CARS, PUBLIC UTILITIES AND INDUSTRIES.

CARPENTER LEADS THE WORLD IN PORTABLE AND EMERGENCY FLOOD and SEARCHLIGHTS

Write for Catalog showing many more Emergency Lights.

CARPENTER MFG. COMPANY,
BOSTON 43 - SOMERVILLE, MASS.

I've Been Penetrated!

. . . with the *improved*

FIREWATER,* the chemical penetrant that *now* gives you:

- ★ **Corrosion no greater than *tap water!***
- ★ **Surface tension of *31 dynes per square centimeter* when diluted 600 to 1!**
- ★ **Penetration that actually *sinks* raw cotton (as well as ducks)!**

Already recognized as being the most effective, least expensive wetting agent on the market, the *new* FIREWATER is even farther ahead of the field. WRITE TODAY, ON YOUR OFFICIAL LETTERHEAD, FOR FREE SAMPLE AND NAME OF DISTRIBUTOR NEAREST YOU!

*** Trade Mark Registered.**

THE FIREWATER COMPANY
Number 1 First Street, Los Altos, Calif.

Muncie "Town Inspection"

THE largest "town inspection" for fire hazards ever conducted by the Indiana State Fire Prevention Association was held at Muncie, May 13–14. Ninety-five volunteer inspectors of the association, which is composed of field representatives of capital stock fire insurance companies, searched for hazards in 734 buildings. The program was under the direction of President Phillip L. Johnson. Secretary B. H. Peterson estimated that the inspection which uncovered 2044 separate "hazards" in 571 buildings cost the insurance companies about $10,000 in salaries and expenses.

Captain Don Parks of the Muncie Fire Prevention Bureau cooperated in the program and stated that in two days the inspectors completed work that would have required two years by his staff both in locating hazards and in public education.

Property owners were given literature calling attention to the fire hazards found. This was followed up two weeks later with a mailing which included a postal card on which owners can report correction of hazards.

Even the public buildings did not escape attention. The public schools were cited as "a shining example of fire safety" but the inspectors found "bad wiring and sloppy housekeeping prevalent throughout the courthouse" and reported that "the city hall needs the service of a qualified electrical contractor to check wiring for old and overloaded circuits." Even the fire department headquarters did not escape a citation for fire hazards. This was no surprise to the department which recognizes its need for manpower, stations and modern equipment. Ninety percent of the hazards found were poor housekeeping, bad wiring, poor building maintenance and defective heating plants.

During the inspection Emmett T. Cox of Chicago addressed a fire prevention meeting of the Muncie Kiwanis Club which was host to other civic clubs. At the conclusion of the inspection the Muncie Insurance Board was host to the inspectors at the Green Hills Country Club.

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Fire Training in Lawton, Oklahoma

THE Fire Department of Lawton, Oklahoma, recently held commencement exercises to observe the completion of the entire ten-unit state fire training course on the part of 19 of the 25 members of the department. The commencement address was given by Professor W. Fred Heisler of the Oklahoma Agricultural and Mechanical College. The 6 men who have not completed training are new recruits who have not had time for the full training course.

This is believed to be the first instance in Oklahoma where such a large percentage of the fire department personnel has completed the entire ten-unit training course which follows the "Oklahoma Red Manuals" now officially in use in some 21 states. The Lawton Department, however, is continuing with advance training in technical subjects related to fire service activities.

Ohio Fire School

ANNOUNCEMENT has been made by Gary Brazier, Director of The Ohio State Fire School, that the Ohio State Fire School will be held this year at Ohio State University from September 2 to 5. The school will be sponsored by the Ohio State University and the Division of State Fire Marshal. Noted authorities on fire prevention and protection will appear on the program.

The Columbus Fire Department and the Franklin County Fire Fighters Association will assist in hose evolutions, ladder demonstrations, rescue work, use of gas masks, salvage and oil fire extinguishment which will be a part of the school this year. Instructors courses will again be a feature of the school with successful participants being awarded an instructor's certificate. Films on fire fighting and fire safety will be shown in the evening.

Further information can be obtained by contacting Foss H. Gragg, Assistant Director, Division of State Fire Marshal, Columbus 15, Ohio.

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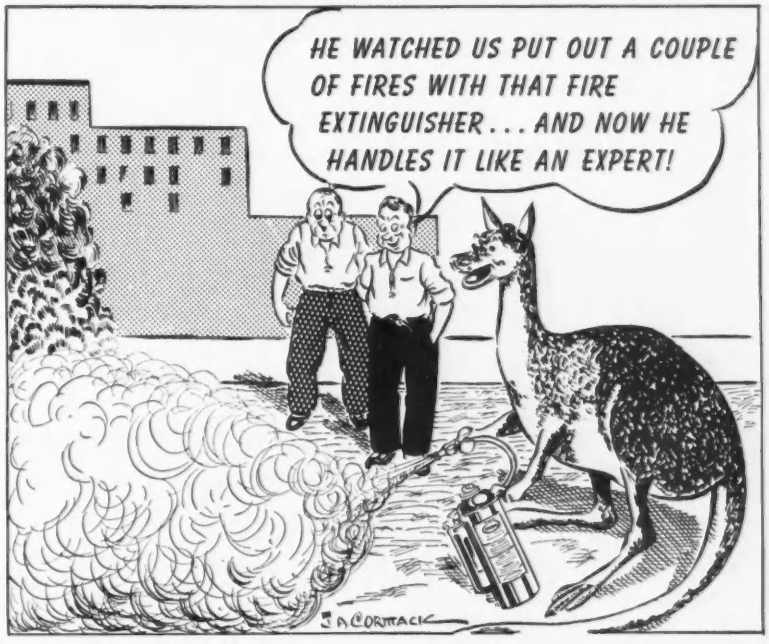

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Dry Chemical Fire Extinguisher

The "Redi-Flo," a new dry chemical fire extinguisher, shown above, is being marketed by Stop-Fire, Inc., 125 Ashland Place, Brooklyn, New York. The extinguisher is available in 3, 5, and 10-lb. units and has been listed by the Underwriters Laboratories. It features a locking mechanism designed to prevent accidental discharge but permitting operation of the unit with a single release-squeeze motion. The extinguisher contains "Dri-Kem," a dry chemical developed in the company's laboratories. Further information may be obtained from the manufacturer.

Reo Motors, Inc., to Build CD Rescue Trucks

Reo Motors, Inc., Lansing 20, Michigan, has announced receipt of an order to build 55 specially-equipped Civil Defense Rescue service trucks. These will be delivered to specific Civil Defense units operating under State Civil Defense agencies.

Each truck will be powered by a 140-hp Reo engine and will be capable of a speed of 55 mph and of negotiating a 5.3 percent grade at 20 miles per hour with a gross vehicle weight of 20,000 lbs. Rear axles will have a special automatic-locking differential to prevent wheel-spin. Most of the trucks will be equipped with front-mounted power winches of 15,000 lb. capacity and 150 feet of ½-in. cable and end-hook. (Winches are optional.)

The rescue apparatus will also have Boyertown all-steel special bodies with 99 items of tools and equipment compartmented and grouped according to the type of rescue work anticipated. There will also be space for two stretcher casualties and for a crew of eight men. Further information may be obtained from the manufacturer.

Grinnell Automatic "ProtectoSpray"

Grinnell Company, Providence, Rhode Island, has recently developed the "Automatic Protecto Spray Nozzle" shown above. The unit has been approved by the Factory Mutual Laboratories and listed by the Underwriters' Laboratories, Inc. The actuating element is the same as in the company's "Quartzoid" sprinkler and is available in the same range of temperature ratings, protective coatings, and finishes. The new nozzle is available in three orifice sizes and six deflector angles to meet various engineering requirements. Further information may be obtained from the manufacturer at the above address.

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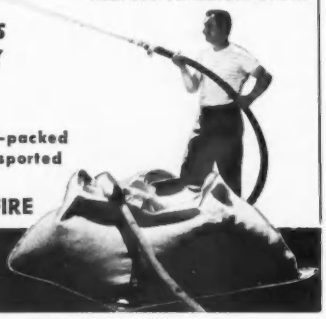

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New Safety Flashing Lantern

The Justrite Manufacturing Company, 2061 N. Southport Avenue, Chicago, Illinois, has introduced a new safety red flashing lantern for use in hazardous locations, as well as other spots requiring a warning or marking light.

The portable, battery-powered lantern, Model 2146-S (shown above) houses a red lens and a sliding switch assembly controlling two bulbs. One position of the switch produces a steady red beam, which can be changed instantly to a flashing red light merely by moving the switch.

Additional safety features of the lantern include a "kick-out" bulb socket, a heavy wire guard which protects the bulb against breakage, spark-proof construction of all protruding parts, and mounting on a movable base for adjustment of the beam to any desired angle.

The light has been listed by the Underwriters Laboratories, Inc., and approved by the U. S. Bureau of Mines, and the Coast Guard Merchant Marine Technical Division. Further information may be obtained from the manufacturer.

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By Lloyd Layman, former chief of the Parkersburg, West Virginia, Fire Department, and author of the book "Fire Fighting Tactics."

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This important book on fire fighting should be used for reference in every fire department and every school for fire training. Chiefs, fire fighting instructors, and fire fighters should be familiar with its informative contents.

"Attacking and Extinguishing Interior Fires" describes up-to-date methods of water application in fire fighting. For the first time a well-known fire chief has listed the fundamentals governing the behavior of interior fires and has analyzed the different phases of fires, "from start to mop-up," that necessitate changes in extinguishing methods.

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This book is excellent reference material for the training of fire fighters in the latest techniques. It can be used as text for permanent reference by both experienced fire fighters and recruits. It is "must reading" for all members of the fire service interested in keeping pace with the fire-fighting evolutions that lead to the most efficient results.

Facts about the author. *Lloyd Layman recently retired after 20 years as Chief of the Parkersburg, West Virginia, Fire Department. Readers of NFPA FIREMEN Magazine will recall his article in the February, 1950, issue entitled "Little Drops of Water," in which he presented theories on fog fire fighting. Chief Layman is a member of the NFPA Committees on Fire Department Equipment and Firemen's Training. During World War II he was commandant of the U. S. Coast Guard Fire Fighting School at Fort McHenry, Maryland, where large scale tests were conducted from which were developed many of the methods of using fog in fire fighting that are now receiving acclaim throughout the fire service.*

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